

**REMARKS**

The Examiner is thanked for the performance of a thorough search, and for speaking with Applicant's representative regarding the pending claims on October 7, 2004.

Claims 1-7, 9-20, 22-26, and 40-53 are pending in this application. Claims 1, 14, and 40 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Applicant's admitted prior art ("AAPA"). Claims 2-7, 9-13, 15-20, 22-26 and 41-52 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Applicant's admitted prior art ("AAPA") in view of U.S. Pat. No. 5,263,174 to Layman ("*Layman*").

Claim 53 stands rejected under 35 U.S.C. § 112, first paragraph.

Claims 47 and 52 are objected to because of informalities.

In this response, Claims 14, 26, 47, and 52 have been amended. The amendments to the claims do not require a new search of the prior art because the claim amendments were made merely to correct typographical errors and to clarify claim language. No new claims are added.

**I. OBJECTION TO CLAIMS 47 and 52**

Claims 47 and 52 have been amended to correct the minor typographical errors noted by the Examiner. In addition, claim 26 has been amended to correct the minor typographical error noted by the Examiner during the October 7, 2004, telephone conversation. The Examiner's attention to detail is greatly appreciated.

Applicant respectfully requests withdrawal of the objection to the claims.

## **II. REJECTION OF THE CLAIMS 1, 14 AND 40 UNDER 35 U.S.C. § 103(a)**

Claims 1, 14 and 40 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over AAPA.

In order to establish a *prima facie* case of obviousness, three criteria must be met: (1) the prior art reference, or combination of references, must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings; and (3) there must be a reasonable expectation of success. (MPEP §2142).

### **A. The Cited Reference Does Not Teach Or Suggest All Of The Claim Limitations**

The Office Action states that the limitation of “a linear command regeneration template” recited by claims 1, 14 and 40 is taught by a binary parse tree, and that Page 1, lines 17-23 of the specification and Fig. 1 teach that the linear command regeneration template “includes at least one linear node template in a memory, each linear node template corresponding to a command element in said configuration command.” However, these cited sections only teach that a binary parse tree can be used to parse a configuration command. The prior art binary parse tree does not include any type of linear node template, much less a “linear node template corresponding to a command element in a configuration command”, as recited by the claims.

As is stated in the specification at Page 8, lines 25-27, “[i]t is important to understand that linear nodes 201 to 203 are not simply binary nodes that are allowed one option path.”

As described in the specification at Page 7, lines 30-32, a “linear parse tree changes the geometric progression of the prior art binary tree to a linear progression.”

Figs. 4A-4D illustrate an example of the differences between a binary parse tree and a linear parse tree. Fig. 4A illustrates a configuration command “TEST”. In this example, a first command element 421 can have values “AA” or “BB”, and the value specified in the configuration command is assigned to argument ten. A second command element 422 can be either a number, or a non-number string. If the value of the second command element is a number, the value is assigned to argument one. If the value of the second command element is a non-number string, the value is assigned to argument two.

Fig. 4B illustrates a binary parse tree that can be used to parse the command of Fig. 4A. In contrast, Fig. 4D illustrates a linear parse tree that can be used to parse the same command. As shown in Fig. 4D, linear node 451 corresponds to the first command element 421, and linear node 452 corresponds to the second command element 422. The binary parse tree of FIG. 4B has no such correlation. As shown in FIG. 4B, the first command element 421, with a value of either “AA” or “BB”, is shown in two separate nodes. The second command element 422, with either a numerical value or a string value, is shown in four separate nodes – two resulting from the first command element 421 having a value of “A”, and two resulting from the first command element 421 having a value of “B”. In addition, even if the binary tree of FIG. 4B were divided into two portions, the first portion starting with the node labeled “A”, and the second portion starting with the node labeled “B”, these portions could not be considered linear node templates, as each portion does not correspond to a command element, as required by the claims. Command elements 421 and 422 are

represented multiple times throughout the binary parse tree of FIG. 4B. In contrast, command elements 421 and 422 correspond to separate individual linear node templates in the linear command regeneration template of FIG. 4D.

Therefore, the portions of the specification cited in the Office Action fail to establish a *prima facie* case of obviousness as the cited portions do not teach or suggest all of the claim limitations, in particular “a linear command regeneration template that includes at least one linear node template, each linear node template corresponding to a command element.”

**B. There Is No Motivation Given In The Office Action To Modify The Cited Reference**

Furthermore, in order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. The Office Action provides *no* motivation to modify the reference, with respect to claims 1, 14 and 40.

Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 14 and 40 for at least these reasons.

**III. REJECTION OF CLAIMS 2-7, 9-13, 22-26 and 41-52 UNDER 35 U.S.C. § 103(a)**

Claims 2-7, 9-13, 15-20, 22-26 and 41-52 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over AAPA in view of *Layman*. Dependent claims 2-7, 9-13, 15-20, 22-26 and 41-46 all include the limitations of independent claims 1, 14 and 40 by virtue of their independence. It is respectfully submitted that these dependent claims are patentable for at least the reasons set forth above with respect to the independent claims.

Furthermore, as explained above, to establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine reference teachings. With respect to claims 2-7, 9-13, 22-26 and 41-52, Applicant respectfully submits that there is no motivation to combine the teaching of AAPA and *Layman*. Furthermore, these claims recite additional limitations that independently render them patentable over the cited prior art.

**A. There Is No Motivation To Combine AAPA And *Layman***

**1. The motivation given in the Office Action is conclusory and the product of hindsight**

As stated by the Court of Appeals for the Federal Circuit, “[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of hindsight syndrome where that which only the inventor taught is used against its teacher.” W. L. Gore & Assocs v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

The Federal Circuit has recently reiterated that “the tests of whether to combine references need to be applied rigorously.” McGinley v. Franklin Sports Inc., 262 F.3d 1339, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001). Broad, conclusory statements regarding the teaching of multiple references, standing alone, are not “evidence” (McElmurray v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993)), and a general relationship between fields of the prior art references is insufficient to suggest the motivation to combine such references (see In re Dembiczak, 175 F.3d 994, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)).

Guided by the foregoing principles, the Office Action statement that “one of ordinary skill in the art would have been motivated to make a selection from a set of options available in a computer program conveniently” does not meet the standard for an obviousness rejection under 35 U.S.C. §103(a).

The stated goals are so general and vague that they cannot rationalize the specific invention that is claimed. It is well-settled that “[i]t is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious” and that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention” (In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992); quoting In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988)).

It appears that impermissible hindsight was used to generate the foregoing statement of motivation.

**2. The alleged motivation would not motivate one skilled in the art to modify AAPA**

Second, even if the motivation stated in the Office Action were not conclusory and the product of hindsight, the stated motivation of making “a selection from a set of options available in a computer program conveniently” is irrelevant to a person of skill in the art desiring to automatically reconstruct a configuration command. The fact that program options can be conveniently selected, as in *Layman*, does not provide motivation to incorporate this method in AAPA. The ability to automatically reconstruct a configuration command, as required by the claims, intrinsically means that no input from a user is needed,

as the process is automatic. Therefore, an interactive method of allowing a user to conveniently select between options in a computer program is of no importance to the person of ordinary skill in the art developing a method of automatically reconstructing a configuration command.

“That one can reconstruct and/or explain the theoretical mechanism of an invention by means of logic and sound reasoning does not afford the basis for an obviousness conclusion unless that logic and reasoning also supplies sufficient impetus to have led one of ordinary skill in the art to combine the teachings of the references to make the claimed invention.” Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). Based on the foregoing, the cited references supply no such impetus to make the claimed invention.

**3. AAPA and *Layman* cannot be combined because they are not analogous art**

It is improbable that one skilled in the art of configuring and managing network devices would look to the art of user interfaces for an interactive program for a suggestion or motivation with respect to automatically reconstructing a configuration command for a network device. As stated in the MPEP 2141.01(a), “[t]he examiner must determine what is ‘analogous prior art’ for the purpose of analyzing the obviousness of the subject matter at issue... In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.”

Here, the claimed invention concerns automatically reconstructing a configuration command that was used to configure a network device. *Layman* is concerned with a

providing an interactive method for a user to select program options. The teachings of *Layman* are not at all pertinent to the problem of automatically reconstructing a configuration command for a network device.

In a case in which a combination of the two references were used in support of an obviousness rejection, the Federal Circuit stated that “[t]he combination of elements from non-analogous art sources, in a manner that reconstructs the applicant’s invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination.” In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Therefore, In re Oetiker stands for the proposition that it is not proper to combine non-analogous prior art. One skilled in the art of configuring and managing network devices would not find a motivation or suggestion to turn to the *Layman* reference for any reason, much less to add an unnecessary user interface to an automatic process.

**4. Combining AAPA and *Layman* would change the principle of operation of AAPA and render it unsatisfactory for its intended purpose**

A combination of references that would change a principle of operation of a reference or would render it inoperable cannot support a 35 U.S.C. § 103 rejection. Likewise, an obviousness rejection also is not appropriate if substantial reconstruction or redesign of the prior art references is necessary to arrive at the invention, as is the case with the cited references. (see In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).



Neither of the cited references convey nor suggest the integration of a method of allowing users to choose between program options into a system that automatically reconstructs a configuration command. The claims require that the configuration command be automatically reconstructed “based on said linear command regeneration template and based on data from the configuration database.” Modifying AAPA to allow a user to interface with the system for any reason, much less to interactively choose program options, as in *Layman*, would change the principle of operation of AAPA. The need for such reconstruction plainly shows that the references lack motivation or suggestion to combine.

If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purposes, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Here, integrating a method of allowing a user to conveniently choice between program options into a system that automatically reconstructs a configuration command render the system unsatisfactory for the intended purpose of automatically reconstructing a configuration command. If user input were required, the system would not be automatic. In addition, even if such integration were possible, it would needlessly increase the cost and complexity of the system, as there is no need for user input of any type, whether conveniently entered or otherwise.

Therefore there is no suggestion or motivation in these references to include the interactive method of *Layman* into the system for automatically reconstructing a configuration command.

**5. *Layman* “teaches away” from the claimed invention**

The absence of any reasonable suggestion or motivation to combine the teachings of the cited references to arrive at any of the claims is even more apparent when the objectives of the references are considered. *Layman* is specifically and explicitly directed to “computer programs which require the user to make a selection or command from a set of valid entries.” (*Layman*, Col. 1, lns 13-15). Furthermore, at Col. 4, ln 20, in describing the method of the invention, *Layman* explicitly states that “an input is required.”

Hence, *Layman* teaches away from a system in which a configuration command is automatically reconstructed without any input from a user.

For all the foregoing reasons, a *prima facie* case of obviousness has not been established for claims 2-7, 9-13, 15-20, 22-26 and 41-52. Accordingly, reconsideration and withdrawal of the rejection of claims 2-7, 9-13, 15-20, 22-26 and 41-52 under 35 U.S.C. § 103(a) is respectfully requested.

In addition, these claims introduce one or more additional limitations that independently render them patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case, only some of these additional limitations are discussed herein, and a separate discussion of each of these limitations is not included at this time.

**B. Rejection Of Claims 9 And 22 Under 35 U.S.C. § 103(a)**

Although claims 9 and 22 are patentable for the reasons given above, it is respectfully submitted that claims 9 and 22 recite additional limitations that independently render them patentable over the cited art.

In the rejection of claim 7, the Office Action stated that heading 1 of Figs. 2a-2c of *Layman* teaches a begin option node template including an identification. Heading 1 is identified as “edibles” in Figs. 2a-2c. In the rejection of claim 4, the Office Action stated that entries 4-7 of Fig. 2a of *Layman*, i.e. “apple”, “pear”, “potato”, “rutabaga”, teach an end option node.

Representative claim 9 recites:

“scanning the linear command regeneration template to find an end option node template that includes said identification of the begin option node template”

Obviously, none of the above-identified “end option nodes” (i.e. *apple*, *pear*, *potato*, *rutabaga*) include *edibles*, the identification of the “start option node.”

Furthermore, the Office Action cites Fig. 3, node 17 as teaching this limitation. Node 17 is merely a step in a process of providing interactive menu options. Col. 4, lns 8-16, which discusses Fig. 3, states with respect to node 17: “[a]t node 15 it is determined which options in the set of options correspond to the group of fragments which have been entered thus far. Execution proceeds to node 17, which calls for a display of all matching options.” There are no identifications in any of the options or fragments.

The begin option node, next option node and end option node of the claimed invention are parts of a data structure that is used to reconstruct a configuration command. Claims 9 and 22 require that the end option node include the identification of the begin

option node. This is illustrated in the linear command regeneration template of Table 3 of the specification, shown on Page 14. As shown, the begin option node "{B, 2, S, ID1, 0}" has an identification of "ID1". The linear command regeneration template of Table 3 is scanned to find the end option node "{E, ID1}" that includes the identification of the begin option node (i.e. "ID1").

*Layman* does not teach any type of end option node that includes an identification of a begin option node, and therefore claims 9 and 22 are patentable for at least these reasons.

**C. Rejection Of Claims 13 And 26 Under 35 U.S.C. § 103(a)**

Although claims 13 and 26 are patentable for the reasons given above, it is respectfully submitted that claims 13 and 26 recite additional limitations that independently render them patentable over the cited art.

Representative claim 13 recites:

"validating said branch based on data from said configuration database"

The Office Action asserts that this limitation is taught by Col. 3, lns 21-25 of *Layman*, which states: "Since each of the subheadings 2, 3 contains a possible valid entry 5, 6, neither is deleted." While this section of *Layman* does teach validating options for an interactive menu, nowhere in *Layman* is data from a configuration database ever used to validate any entry, as required by claims 13 and 26.

Therefore, Applicant respectfully asserts that claims 13 and 26 are patentable for at least these reasons.

**D. Rejection Of Claim 47 Under 35 U.S.C. § 103(a)**

Although claim 47 is patentable for the reasons given above, it is respectfully submitted that claim 47 recites additional limitations that independently render it patentable over the cited art.

**1.        *Layman* does not teach information identifying how to  
regenerate a configuration command**

Claim 47 recites:

“the linear command regeneration template comprises information identifying how to regenerate a configuration command”

The Office Action asserts that *Layman* teaches this limitation through node 17 of FIG.

3. As noted above with respect to claims 9 and 22, node 17 is merely a step in a process of providing interactive menu options. Col. 4, lns 8-16, which discusses Fig. 3, states with respect to node 17: “[a]t node 15 it is determined which options in the set of options correspond to the group of fragments which have been entered thus far. Execution proceeds to node 17, which calls for a display of all matching options.” There is no information identifying how to regenerate a configuration command anywhere in this cited section, or anywhere else in *Layman*.

**2.        *Layman* does not teach an end option node having a single exit**

Claim 47 recites:

“an end option node coupled to said begin option node wherein said end option node has a single exit.”

The Office Action asserts that entries 4-7 (*apple, pear, potato, rutabega*) of Fig. 2a teaches “end option nodes.” The Office Action fails to point out how Fig. 2a teaches an end option node having a single exit, as required by claim 47.

As shown in FIG. 4D of the present specification, each representative linear node template 451, 452, has a single begin option node (401 and 411 respectively), multiple next option nodes (403a, 403b and 413a, 413b, respectively), and a single end option node (402 and 412, respectively). Even if Fig. 2a taught a linear node template, which it does not, it has a single “begin option node” (*edibles*), multiple “next option nodes” (*fruits and vegetables*), and multiple “end option nodes” (*apple, pear, potato, and rutabega*). *Layman* does not teach or suggest an end option node having a single exit.

Applicant respectfully submits that claim 47 is patentable for at least these reasons.

**E. Rejection Of Claim 52 Under 35 U.S.C. § 103(a)**

Although claim 52 is patentable for the reasons given above, it is respectfully submitted that claim 52 recites additional limitations that independently render it patentable over the cited art.

Claim 52, dependent on claim 47 which, as discussed above, requires a linear node template with an end option node having a single exit, recites:

“another linear node in said parse there wherein said another linear node comprises a second begin option node having a single entrance connected to said exit of said end option node”

*Layman* cannot teach another linear node connected to the single exit of the end option node of first linear node, as *Layman* teaches that a “linear node template” can have multiple exits. For example, it would be impossible to connect another linear node to the “linear node template” of FIG. 2a as the “linear node template” of FIG. 2a has four exits.

Applicant respectfully submits that claim 52 is patentable for at least this reason.

**IV. REJECTION OF CLAIM 53 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH**

Claim 53 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Office Action cites lines 10-11 and 14-17 of Claim 53 in particular, however, the Office Action fails to point out how these specific claim limitations are not adequately supported by the specification.

The rejection under 35 U.S.C. §112, first paragraph is not a valid rejection, as every claim limitation is disclosed and described in the specification. The following claim chart for claim 53 details exactly where in the specification support for every limitation is found:

SUPPORT IN SPECIFICATION FOR CLAIM 53	
53. A method of automatically regenerating a network device configuration command based on configuration data stored in the network device, wherein parsing and processing of the configuration command resulted in storage of the configuration data, the method comprising the computer-implemented steps of:	
creating and storing a linear command regeneration template including a linear node template, wherein the linear node template comprises a begin option node template, a next option node template, and an end option node template;	Page 3, line 34 – Page 4, line 2
regenerating the configuration command based on the linear command regeneration template and based on data from a database, by:	

SUPPORT IN SPECIFICATION FOR CLAIM 53	
scanning the linear command regeneration template to find an end option node template that includes an identification of the begin option node template	<p>Page 4, lines 7-12: "scanning the linear command regeneration template to find a begin option node template, and obtaining an identification of the begin option node template." Next, "the linear command regeneration template is scanned to find an end option node template including the identification"</p> <p>Page 15, line 31 – Page 16, line 2 – "scans linear command regeneration template to find a linear node... linear node is delimited by the begin option node template with identification ID1 and the end option node template with identification ID1."</p> <p>Page 36, lines 25-26 – "scan template for endoption mark with the ID" (See FIG. 11)</p> <p>Page 37, lines 11-13 – "scans linear command regeneration template to locate an end option node with the same identification"</p>
passing the linear node template from the linear command regeneration template to an evaluate branches process;	<p>Page 4, lines 15-18 – "the linear node template is passed from the linear command regeneration template to an evaluate branches process"</p> <p>Page 16, lines 7-10 – "cut from template and passed to find branch operation"</p> <p>Page 36, lines 27-30 – "pass cut option construct to Pick_option_path() for processing"</p> <p>Page 37, lines 18-22</p>
evaluating at least one branch in the linear node template from the linear command regeneration template by the evaluate branches process;	Page 4, lines 18-19 – "evaluating at least one branch in the linear node from the linear command regeneration template includes finding a branch in the linear node template, and validating the branch using the data from the database"
finding a branch in the linear node template; and	<p>Page 4, line 22</p> <p>Page 16, lines 10-29</p> <p>Page 37, lines 24-33</p>
validating the branch using the configuration data stored in the network device.	<p>Page 4, line 23</p> <p>Page 16, lines 29-33</p> <p>Page 37, line 34 – Page 38, line 2</p>

Withdrawal of the rejection of claim 53 under 35 U.S.C. §112, first paragraph, is respectfully requested.



**CONCLUSION**

It is respectfully submitted that all of the pending claims are in condition for allowance and the issuance of a notice of allowance is respectfully requested. If there are any additional charges, please charge them to Deposit Account No. 50-1302.

The Examiner is invited to contact the undersigned by telephone if the Examiner believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

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on December 7, 2004

by

  
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